

U.S. Application Serial No. 09/700,713
Amendment dated October 28, 2003
Reply to Office Action of July 28, 2003

Listing of the Claims

Claims 1-14 canceled.

Claim 15 (Currently amended):

A feed according to claim 1 composition for crustaceans or fish comprising a feedstuff additive, the feedstuff additive a) being prepared from gram-negative bacteria,
b) having a molecular weight of 5000± 2000 as measured by SDS-PAGE method using a protein marker, c) being substantially free of high molecular weight lipopolysaccharide,
d) containing a low molecular weight lipopolysaccharide as an effective component and
e) capable of activating immunity or preventing infection in crustaceans or fish; wherein the infection is caused by a disease selected from the group consisting of: acute viremia of crustaceans, their vivrio diseases, parasitosis or mycosis; iridovirus infectious diseases of fish, their rhabdovirus diseases, neuronecrosis, infectious hemopoietic organ necrosis, psuedotuberculosis, streptococcal diseases, enterococcus diseases, vivrio diseases, cold-water disease, Pseudomonas diseases, gliding bacteria diseases and Saprolegnia diseases.

Claim 16 (Currently amended):

A feed composition according to claim + 15, wherein the high molecular weight lipopolysaccharide is one having a molecular weight of at least 8,000.

Claim 17 canceled.

Claim 18 (New):

A method for activating immunity or preventing infection in crustaceans or fish

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comprising administering an effective amount of a feed for crustaceans or fish comprising a feedstuff additive, the feedstuff additive a) being prepared from gram-negative bacteria, b) having a molecular weight of 5000 ± 2000 as measured by SDS-PAGE method using a protein marker, c) being substantially free of high molecular weight lipopolysaccharide, d) containing a low molecular weight lipopolysaccharide as an effective component and e) capable of activating immunity or preventing infection in crustaceans or fish.

Claim 19. (New):

The method of claim 18 wherein the feed further comprises a carrier.

Claim 20 (New):

The method according to claim 18, wherein the gram-negative bacteria are those pertaining to the genus *Pantoea*.

Claim 21 (New):

The method according to claim 20, wherein the gram-negative bacteria are *Pantoea agglomerans*.

Claim 22 (New):

The method according to claim 18, wherein the infection is a disease selected from the group consisting of: acute viremia of crustaceans, their vivrio diseases, parasitosis or mycosis; iridovirus infectious diseases of fish, their rhabdovirus diseases, neuronecrosis, infectious hemopoietic organ necrosis, psuedotuberculosis, streptococcal diseases, enterococcus diseases, vivrio diseases, cold-water disease, *Pseudomonas* diseases, gliding bacteria diseases and *Saprolegnia* diseases.

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Claim 23 (New):

The method according to claim 18, wherein the high molecular weight lipopolysaccharide is one having a molecular weight of at least 8,000.

Claim 24 (New):

The method according to claim 18, wherein the feedstuff additive is provided in a concentration between 1 and 1000 µg.

Claim 25 (New):

The method according to claim 18, wherein the feedstuff additive is provided in a concentration between 1 and 1000 µg per kg of body weight.

Claim 26 (New):

The method according to claim 18, wherein the feedstuff additive is provided in a concentration between 0.000001 to 0.001% by weight of said feed.